

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 129/2010 (Suo-motu)

**Coram: Shri S.Jayaraman, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 29.4.2010

Date of Order: 4.11.2010

In the matter of

Maintenance of grid security of the entire North East West(NEW) grid by curbing overdrawals and effecting proper load management by Northern Region constituents.

And

In the matter of

Northern Regional Load Despatch Centre Petitioner

Vs.

- 1.Uttar Pradesh Power Corporation Ltd Lucknow
- 2.Punjab State Electricity Board, Patiala
- 3.Haryana Vidyut Prasaran Nigam Ltd, Panchkula
- 4.Power Development Department, Govt. of J&K, Srinagar
- 5.Rajasthan Rajya Vidyut Prasaran Nigam Ltd. Jaipur
- 6.Power Transmission Corporation of Uttaranchal Ltd, Dehradun
- 7.Himachal Pradesh State Electricity Board, Shimla
- 8.Electricity Department, UT of Chandigarh

.....Respondents

- 9.Delhi Transco Ltd, New Delhi
- 10.Member Secretary, Northern Regional Power Committee

---- Proforma Respondents

The following were present:

1. Shri Rajiv Kumar, NRLDC
2. Shri Alok Kumar, NRLDC
3. Shri V.K. Aggarwal, NRLDC
4. Shri B.P. Pant, UPPCL
5. Shri Rahul Srivastava (Advocate), UPPCL
6. Shri Dinesh Khandelwal, RRVPNL
7. Shri S.K. Jain, RVPNL



ORDER

The petitioner, Northern Regional Load Despatch Centre has alleged that State Control Areas and Regional Entities of Northern Region are resorting to the sustained over-drawal from the regional grid and has filed the present petition seeking the following reliefs:

- (a) Direct the Northern Region SLDCs and State Control Areas in the Northern Region to honour paras 5.4.2, 6.4.7 and 6.4.8 of the Indian Electricity Grid Code (IEGC) and curb their overdrawal when the frequency is below 49.20 Hz so that the NEW grid is secure.
 - (b) Direct the SLDCs and State Control Areas in the Northern Region to honour the instructions of the RLDC under section 29(1) of the Electricity Act, 2003.
 - (c) Direct SLDCs and State Control Areas in the Northern Region to take necessary steps for proper load management so as to avoid over-drawal in the ensuing months.
2. Gist of the submissions by the petitioner is as under:
- (a) The frequency profile of the entire, North, North-East, East and West (NEW) grid has undergone sharp deterioration since the start of the month of April 2010. The percentage of time frequency prevailed below 49.2 Hz reached up to 80 % on 9th April 2010.



(b) Above stated sustained low frequency profile is attributable to over-drawals by the State Control Areas/Regional Entities in Northern Region. The over-drawal position based on SCADA data during the month of April 2010 (up to 09th April-10th) reveals that except Delhi, all the State Control Areas had been heavily over-drawing, as may be seen from the data hereunder:

State Control Area/Regional Entity	Over drawal (Avg. MU/day)	Maximum MW overdrawal at frequency <49.2 Hz
UP	8.3	1329
Punjab	12.6	1190
Haryana	3.4	917
J & K	3.1	728
Rajasthan	2.4	492
Uttarakhand	4.2	447
HP	1.9	341
Chandigarh	0.7	98
Delhi	-8.4	80

(c) The petitioner has been issuing different messages to the defaulting State Control Areas and the Regional Entities in tune with the provisions of the Grid Code as per the following scheme:

Message-Type	Subject Description
Caution message in line with clause 6.4.7 of Grid Code (Message type A)	Intimation of Low frequency operation and request to restrict the drawal within schedule
Violation of Grid Code clause 5.4.2 (a) and 6.4.7 (Message type B)	Intimation regarding violation of clause 5.4.2 (a) and clause 6.4.7 of the Grid Code and directions under clause 5.4.2 (b) of Grid Code and 29(1) of Indian Electricity Act 2003 for immediate action for restriction of overdrawal in order to avert threat to system security
Violation of Grid Code 5.4.2 (b) and Electricity Act 2003 section 29 (2)/29(3) (Message type C)	Intimation of violation of clause 5.4.2(b) of Grid Code and section 29(2)/29(3) of Indian Electricity Act 2003 and request for immediate action for curtailing the overdrawal, in the interest of grid safety and security

(d) The petitioner has submitted the following details of the messages which were issued to the entities in the Region during the relevant period:

State	Caution Message in line with clause 6.4.7 of Grid Code (Message type A)	Message intimating violation of Grid Code clause 5.4.2 (a) and 6.4.7 (Message type B)	Message intimating violation of Grid Code clause 5.4.2 (b) and Electricity Act section 29 (2) / 29 (3) (Message type C)
UTTAR PRADESH	42	22	14
PUNJAB	40	19	11
UTTARAKHAND	33	16	9
HARYANA	27	18	7
RAJASTHAN	28	10	4
J&K	23	16	3
HIMACHAL PRADESH	10	3	0
CHANDIGARH	17	2	0
DELHI	0	0	0

(e) The petitioner has pointed out that some of the State Control Areas are exporting power in Short Term Open Access (STOA) and are over-drawing from the grid as may be evinced from the following data:

State Control Area	Bilateral (MUs)			PX (MUs)			NET (MUs)		
	SALE	PUR-CHASE	NET	SALE	PUR-CHASE	NET	SALE	PUR-CHASE	NET
Chandigarh	0.0	10.6	10.6	0.0	0.0	0.0	0.0	10.6	10.6
Delhi	20.3	476.5	456.1	61.8	6.6	-55.2	26.9	538.3	400.9
Haryana	125.2	10.9	-114.3	0.8	24.6	23.8	149.8	11.7	-90.5
HP	13.5	0.0	-13.5	7.7	0.0	-7.7	13.5	7.7	-21.2
J&K	121.9	0.0	-121.9	0.0	0.0	0.0	121.9	0.0	-121.9
Punjab	253.1	26.2	-226.9	1.4	2.2	0.8	255.3	27.6	-226.1
Rajasthan	14.5	100.2	85.7	1.8	99.8	98.0	114.3	102.0	183.7
UP	14.4	0.0	-14.4	0.0	2.4	2.4	16.8	0.0	-12.0
Uttarakhand	14.4	15.1	0.7	0.0	0.0	0.0	14.4	15.1	0.7

3. Reply to the petition has been filed by the UPPCL, Delhi Tansco Limited, and Rajasthan Rajya Vidyut Prasaran Nigam Ltd.

4. During the course of argument of the case on 29.04.2010, learned counsel for UPPCL submitted that the over drawl was beyond the control of the State. He pointed out that the temperature was unexpectedly high at around 45 degree Celsius during this period. He submitted that the respondent tried to get the power through power exchanges, but because of high rate of ₹ 12 per unit, it did not materialize. He mentioned that consequent to the meeting held under the chairmanship of UPPCL on 12.4.2010 to take stock of the situation, industrial feeders and induction furnace and rolling mills were also brought under rostering from 2200 hrs to 0400 hrs, with effect from 13.4.2010 to 15.5.2010 in all districts in the state, restrictions were imposed on the use of Air Conditioners in commercial places from 1800 hrs to 0600 hrs, closure of markets by 2000 hrs and not decorating hoardings and parks by electrification from 15.4.2010 to 15.5.2010 for maintaining grid discipline and avoiding overdrawal. Rostering in towns of the State was causing mob violence and leading to law and order problem, he added. Learned counsel further submitted that Hon'ble High court of Lucknow had issued contempt notice for disruption of supply of electricity to the High court. The representative of the UPPCL submitted that due to forced outage of Obra power plant, availability of power from the State's own sources had decreased. Further, its request for postponing the planned outage of NTPC stations was not agreed to because of which its central sector power had also decreased.

5. Learned counsel for UPPCL submitted that UPPCL had tied up for 684 MW during May, 2010 and 664 MW during June, 2010 and was further expecting the demand to come down by 15th May, 2010. Delhi was continuously under-drawing throughout the day, and earning UI charges he added. In response



thereto, the representative of SLDC, Delhi submitted that by under-drawing at low frequency Delhi was helping the grid. Its under frequency relays were operating causing inconvenience to its consumers. In April 2010 there had been at least 87 instances of operation of UFRs in Delhi.

6. The representative of the petitioner submitted that while 1,000 MW transmission corridor was available for transfer of power to Northern Region, but no request was received from UPPCL for booking the corridor. If UPPCL intended to purchase power, it should book the corridor in advance; otherwise it would end up not getting the same at the last moment, he cautioned. The representative of petitioner further informed that NRLDC had received open access application from UP only for 155 MW and 45 MW in May and June 2010 as against 684 MW and 664 MW respectively claimed by it. The representative of UPPCL assured to look into the same and apply for the required open access.

7. UPPCL in its affidavit dated 27.04.2010 has endeavoured to justify overdrawal by the State citing a number of reasons such as insufficient allocation from Central Sector generating stations, less availability of power from these stations and the problem in conveying the messages from NRLDC to various sub-stations for implementing the reduction in overdrawal etc. It was also submitted that although the respondent was performing the functions of SLDC it had not been able to ensure the integrated operation of power system in the State and in the absence of the required statutory autonomy, the officials of the UPPCL, which is a corporation under the State Government, could not ignore the instructions from the Govt. It was also denied that any power was sold by the State. Further, vide affidavit dated 12.5.2010 , UPPCL submitted that they had



purchased power from IEX up to 4.8 MU (approx. 600 MW from 10PM to 6 AM) during 1st to 12th May,2010.

8. Delhi Transco Ltd. in its submission dated 11.5.2010 submitted that the allocation from Central Sector Generating Stations (CGSs) and availability of power from generating stations in Delhi was not sufficient to meet the peak demand of Delhi. To meet the shortfall between the demand and availability additional power was arranged through bilateral, banking and power Exchanges. It was also submitted that in spite of arranging sufficient power, Delhi could not meet its entire demand due to tripping of feeders on Under Frequency Relay operations on account of over-drawl of other States.

9. Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL) in its reply dated 4.5.2010 while not denying the position reported by NRLDC in respect of Rajasthan regarding over-drawal in the month of April, 2010 (up to 9th) has submitted that the load management being a dynamic process, there is always mis-match between schedule and drawal. However, the SLDC had made all out efforts to curtail the overdrawal by giving messages to Distribution Companies (Discoms) in writing as well as orally through telephone. RRVPNL has stated that the instructions of SLDC/Discoms conveyed through 220kV grid sub-stations takes about 15 to 20 minutes to reach the actual locations of 33 kV and 11 KV feeders from where load is being shed. Regarding the compliance of various messages from NRLDC it was submitted that as soon as any message was received from NRLDC the same was forwarded to the concerned over-drawing Discoms immediately for compliance. In addition, the Load Despatch control room also gave messages in writing to the over-drawing Discoms time and again

to curtail over-drawal at low frequency. It was also submitted that letter from Superintendent Engineer (SO&LD), RVPNL and CMD RVPNL, have also been written to Discoms for managing load as per provisions of the Commission's Regulations. Regarding the submission by the petitioner alleging simultaneous export of power and at the same over-drawal from the grid, the respondent has answered that Discoms were not exporting power but some captive power plants in the State were exporting power through short term open access. Discoms were only purchasing power through various arrangements to fill the gap between demand and availability.

10. We have considered the submissions of UPPCL, RRVPNL and DTL. We find that factors like insufficient allocation from Central Generating Stations and planned outage of Central Generating Stations have been cited by UPPCL as some of the reasons for overdrawal from the grid. In our view, while the load growth has taken place substantially, there is no increase in the installed capacity in the State of UP. The States are required to meet their consumers demand through advance planning and timely implementation of the projects for capacity addition and other long term arrangement for power and cannot depend solely on the allocation from the central sector to meet their consumer demand. As regards the planned outage, regular maintenance of the plant is necessary for proper operation and life of the plant and to obviate sudden outage in the interest of grid security. Shortfall on account of planned outage can be met through advance planning to procure power from the bilateral market or power exchange.

11. From the records available, it is evident that only U.P., Delhi and Rajasthan have submitted their reply. No other respondent has submitted its



response as directed by us vide the Record of Proceedings for the hearing of the case on 29.04.2010. We do not approve of the practice of Respondent Nos.2,3,4,6,7 and 8 not to file response to the directions of the Commission in such a grave matter as grid security. We direct these Respondents to ensure that our directions are duly complied with in future.

12. As regards the non-compliance of the directions of NRLDC, it is pertinent to mention that U.P and Rajasthan in their submissions have not denied the overdrawal and the receipt of the messages from NRLDC. They have given various reasons for overdrawal which are general in nature and do not absolve them of the obligations imposed by the Grid Code and the Act. UPPCL, vide Para 17 (c) of its reply dated 27.4.2010 has categorically accepted that it was not able to ensure the integrated operation of the power system in the State, though it is operating the SLDC. As far as the compliance of NRLDC directions were concerned, SLDC Rajasthan has submitted that it had forwarded the messages received from NRLDC to Discoms and letters were written to Discoms to manage their drawal within schedule. We are not satisfied with the explanation of RRVPNL. SLDC is not only responsible for ensure integrated operation of the power system within the State, it is also responsible for ensuring that directions of RLDC are duly complied with by the licensees or generating stations or sub-station.

13. We find that Delhi has not been issued any message though it has overdrawn a maximum of 80 MW when the frequency was below 49.2 Hz. Similarly, in case of Chandigarh and Himachal Pradesh, though they have overdrawn a maximum of 98 MW and 341 MW respectively when the frequency



was below 49.2 Hz., only A and B messages have been issued to them and no C message has been issued. In all these cases, the utilities have not violated the directions issued by NRLDC under Section 29(2) and (3) of the Act, meaning thereby that the frequency position has improved after receipt of B messages/directions under section 29(1) of the Act. Considering the quantum and duration of overdrawal, we do not intend to initiate any penal measure against them and warn these utilities to strictly comply with the provisions of the Act and Grid Code and the directions of the RLDC in the matter of maintaining grid discipline.

14. About the other utilities such as Uttar Pradesh Power Corporation Limited, Punjab State Electricity Board, Haryana Vidyut Prasaran Nigam Limited, Rajasthan Rajya Vidyut Prasaran Nigam Limited, Power Transmission Corporation of Uttarkhand Limited and Power Development Department of J & K, there is indiscriminate overdrawal from the grid and non-compliance of the directions issued by NRLDC under section 29(2) and (3) of the Act. Therefore, we direct that proceedings under section 143 of the Act be initiated against these utilities for non-compliance of the directions of NRLDC. We appoint one of us, namely, Shri M. Deena Dayalan, Member as the Adjudicating Officer under section 143 of the Act for holding an inquiry against these utilities.

Sd/-
(M.Deena Dayalan)
Member

sd/-
(S.Jayaraman)
Member

